

## **CLAIMS**

### **What is claimed:**

- 5    1.    A method for use in non-invasively monitoring a physiological parameter of a patient, comprising the steps of:
- obtaining a photoplethysmographic ("pleth") signal that is modulated based on interaction of a transmitted optical signal with blood of said patient, wherein said pleth signal includes at least a first component associated with the operation of the
- 10    patient's respiratory system and a second component associated with the patient's autonomic nervous system;
- processing said pleth signal relative to said first and second components to distinguish an effect associated with one of said first and second components from an effect associated with the other of said components; and
- 15    using said distinguished effect to monitor said physiological parameter.